

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Flat Creek

Waterbody Segment at a Glance:

County: St. Louis
Nearby Cities: Eureka
Length of Impairment: 1.1 miles
Pollutant: Volatile Suspended Solids (VSS) and Ammonia
Source: Eureka Wastewater Treatment Plant



State map showing location of watershed

Proposed for addition to the 2002 303(d) list

TMDL Priority Ranking: To be determined

Description of the Problem

Beneficial uses of Flat Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption

Use that is impaired

- Protection of Warm Water Aquatic Life

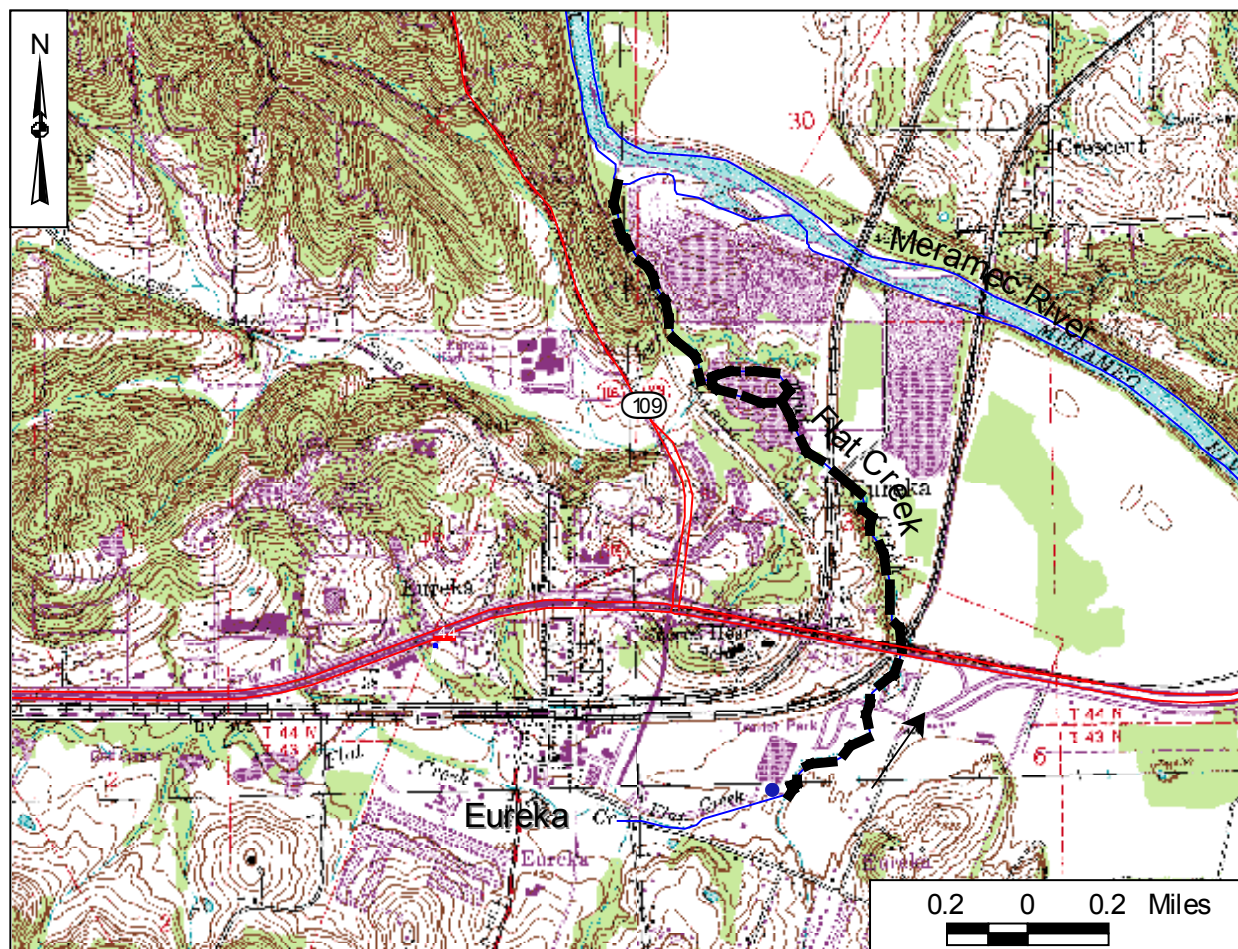
Standards that apply

- The Missouri Water Quality Standards for ammonia, found in 10 CSR 20-7.031 Table B, vary depending on the pH and the temperature. The ammonia standards that apply to Flat Creek (at a pH of 7.8) are 2.0 mg/L for summer and 3.3 mg/L during the winter.
- The standards for Volatile Suspended Solids (VSS) may be found in the general (or narrative) criteria section of the WQS at 10 CSR 20-7.031(3)(A) and (C). Here it states:
 - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

Flat Creek shows an accumulation of sludge deposits downstream of the Eureka Wastewater Treatment Plant (WWTP). Volatile Suspended Solids (VSS) refer to particles that are suspended in water, like algae, or those that settle out, like the sewage sludge in Flat Creek. When these organic solids settle onto the streambed, they smother natural substrates (materials in the streambed), aquatic invertebrate

animals (water insects and crayfish) and fish eggs. Eureka is planning to eliminate the discharge to Flat Creek and extend it to the Meramec River. This will improve the water quality and solve the problem in Flat Creek. In addition, the discharge to the Meramec should not harm that river due to its greater assimilating ability.

Flat Creek at Eureka in St. Louis County, Missouri



For more information call or write:

Missouri Department of Natural Resources

Water Pollution Control Program

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